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ABSTRACT

Despite declining enrollment in school populations in Ontario, the number of children requiring special education is increasing. The four factors working to increase special education enrollment include (1) an increased survival rate of children with disabilities, (2) a change in assessment categories, (3) an atmosphere in which educators feel obligated to provide services to all children, and (4) earlier and more intensive provision of services to handicapped children. In conjunction with this report, a survey of 193 boards and 12 teacher education institutions in the province revealed that 28 percent of the respondents felt pupil reduction would have deleterious effects on special education, but that 38 percent hoped for an increase in the quantity or quality of their services. The current trend toward integration of handicapped children into the regular classroom requires the recruitment and training of support personnel to assist in mainstream classes and the special inservice training of regular class teachers. Funding remains the biggest problem in expanding and restructuring special education programs to meet current needs. (Author/WD)

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DECLINING ENROLMENTS AND ITS RAMIFICATION FOR SPECIAL EDUCATION

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AUGUST, 1978

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DECLINING ENROLMENTS AND ITS RAMIFICATION FOR SPECIAL EDUCATION

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DECLINING ENROLMENTS AND ITS RAMIFICATION FOR SPECIAL EDUCATION

INTRODUCTION

During the twenty-five year period between 1946 and 1971, an increasing birthrate created pressure to build new schools and train more teachers. It also presented new problems and the general climate of growth created an atmosphere in which those problems could be attacked. However, the decline in the birthrate since that time, with the attendant consequences for school enrolments, has changed that climate considerably. Dr. Robert W.B. Jackson, Head of the Commission on Declining School Enrolments, has stated that the decline presents an opportunity to investigate ways of improving the quality of education (Toronto Star, January 14, 1978). In a statement to the Ontario Teachers' Federation (Toronto Star, January 14, 1978.) he mentioned special education, among other possibilities, as an area which might benefit from increased consideration at the present time.

Nevertheless, the immediate implications of declining enrolments for special education do not seem to be beneficial. Rather, the provision of special education services would appear to be especially vulnerable to population changes for several reasons. First of all, if special education enrolments decline similarly to the general school population, it becomes increasingly difficult to obtain sufficient numbers of children to make the provision of particular services viable. Second, if the need to retrench threatens the provision of regular services to the general population of children, it becomes increasingly

difficult to enlist support for the special needs of comparatively small groups of individuals. In addition to problems associated with maintaining the necessary levels of resources, if seniority is the sole criteria for teacher retention and there is virtually no recruitment, special education could be seen as a repository for teachers who have not performed well within a regular class. Since periodic upgrading of qualifications is not mandatory, many teachers may not be aware of current educational trends nor feel the need to retrain in order to meet changes in staffing needs.

There are a number of questions that we have attempted to investigate in order to more adequately determine the likely impact of declining enrolments on special education. First of all, we wanted to develop some idea of the demographic trends within special education itself. Were these enrolments declining and to what extent? What are the reasons behind any changes? Secondly, we wished to examine the provision of services within special education, in order to detect any trends which might create particular problems for special education during a period of overall decline. Lastly, we felt it was important to assess professional training in order to determine what needs existed and what the implications for meeting them might be.

DEMOGRAPHIC TRENDS

From the beginning, it has been questionable whether the demographic trends which apply to the general population apply to special populations. A look at the education statistics from 1970 through 1976 indicates that there has been a general increase in the number of children in special classes, as opposed to decreasing enrolments in the total elementary and secondary school populations (See Table 1).

Table 1

Special and General Full-Time Enrolments in Elementary School from 1970 through 1976[a]

	Special Education[b]	Total Elementary	Total Secondary
1970	37,998	1,465,488	2,022,401
1971	37,371	1,456,840	2,031,360
1972	39,555	1,445,101	2,028,114
1973	38,612	1,422,885	1,994,489
1974	-	1,404,839	-
1975	39,773	1,389,478	-
1976	41,928	1,360,085	-

[a]Education Statistics, Ontario, 1976.

[b]The figures for Special Education include only elementary children placed full-time in special classes. Corresponding figures for the secondary level were not available.

Furthermore, the Ontario Ministry of Education has indicated that there still remain approximately 15,000 children on waiting lists needing some form of special education and possibly an additional 20,000 who are as yet unidentified.[1] There are also approximately 1,500 children within the Province who are currently not enrolled in an educational program per se. Some of these have gone to private schools outside of Ontario in order to receive appropriate programming, some are located in hospital wards, developmental day care centres,

[1]This data comes in a personal communication from the Special Education Branch of the Ministry of Education, 1978. Similar figures are given in an article in the Globe & Mail, March 20, 1978.

homes for special care, juvenile training schools, government group homes, and other psychiatric programs which do not have an educational program, and some are not involved in any type of program whatsoever. A great number of these children would need to be placed in special education programs if legislation mandating the universal provision of special education were introduced, the exact number depending on the scope of the legislation. Early identification programs, which assess children prior to or soon after entering school and identify those who require special assistance or preventative programming, are mandatory as of September of this year. Such programs will add another large group of children to the special education population, perhaps numbering as many as 10,000.

The increase in children requiring these services appears to be due to several factors. First of all, although birthrates in the general population have declined since the start of the current decade, there has been an increase in the number of premature infants who are surviving. Education Statistics (1975) and the medical records from the Hospital for Sick Children both reflect a decrease in infant mortality in recent years (See Table 2).

Table 2

Number of Live Births and Infant Mortality from 1957 to 1976

	Live Births[a]	Infant Mortality	
		Ontario[a]	Hospital for Sick Children[b]
1957	105,920	3,776	-
1970	134,724	2,271	-
1971	130,395	1,990	-
1972	125,060	1,908	96
1973	123,776	1,740	102
1974	124,229	1,666	54
1975	125,708	1,610	77
1976	-	-	83

[a]Education Statistics, Ontario, 1975.

[b]Personal communication, Medical Records Department, Hospital for Sick Children, 1978.

Additional records from the Hospital for Sick Children reveal an increase in the total number of referrals due to prematurity. In particular this table shows a rather dramatic increase in the number of infants surviving of extremely low birth weights (i.e. less than 1500 grams). See Table 3.

Table 3

Infants Referred to Hospital for Sick Children

Due to Prematurity from 1972 through 1976

Year	Short Gestation [a]	Low Weight Lt 2300 gm	Lt 1500 gm
1972	443	413	-
1973	425	360	88
1974	412	380	111
1975	506	318	225
1976	563	320	254

[a]These categories are mutually exclusive.

The decline in infant mortality statistics means that many infants are surviving who only a few years ago would not have passed the prenatal period. Advances in medical science have also allowed more children to survive severe illness or trauma. The survival of these children, in particular, infants with very low birth-weight, is frequently attended by severe, multiple handicapping conditions (Special Education Department, Toronto Board of Education, 1977).

On the other hand, certain conditions which were responsible for large numbers of special education cases in the past have now been virtually eliminated or controlled (e.g. rubella and meningitis). Therefore, it appears that the special population, in addition to increasing, is also changing.

A second factor of great, if not primary importance in increasing special education enrolments, is the attempt by Boards of Education to more fully provide for children with special needs through identification and remediation programs of various types. Estimates of the incidence of exceptionality in the population vary widely. In 1965, the Dominion Bureau of Statistics estimated that between 10 and 15% of children under 19 years of age were suffering from some type of emotional or learning disorder. The CELDIC Report (1970)* concludes after examining a wide body of data, that the incidence of exceptionality is between 12 and 16%. In its 1965 study, the Dominion Bureau of Statistics found that only 2% of children across Canada were enrolled in special education, leaving a wide gap between the need and its fulfillment.

Statistics from the Ministry of Education[2] show that, in 1976-77, 12.3% of all school age children were receiving some type of special education. These increases result from more thorough indentification procedures as well as more comprehensive programming. However, if we take the upper estimate of 16% for children needing special services, there would still appear to be some unmet need. In fact, as has been discussed above, the Ministry estimates that there are potentially 46,500 children awaiting some form of special services.

*One Million Children

However, it is difficult to project special education needs with any precision because tremendous variation exists in how various exceptionalities are defined and assessed. For example, estimates of the incidence of emotional disorders range from 2.2 to 49%. "Learning disability" is a vaque diagnostic category, which is estimated to occur in from 10 to 25% of the population, depending on what definition is used (CELDIC Report, 1970).

This situation is at least partly due to changes that have occurred in the manner by which exceptionalities are defined and children identified. Traditional definitions were categorical and followed a medical model. This means that a child was assigned to a particular educational slot on the basis of handicapping conditions which were thought to have rather general implications. For example, exceptionalities such as mental retardation or blindness were viewed as unitary syndromes which resulted in a relatively constant set of characteristics applicable to every child assigned to the category.

The problem with this approach is that there was no direct correspondence between diagnostic labels and educational programs (CELDIC report, 1970). Educational exceptionalities are not diseases which can be treated by administering medicine, adjusting diet, or implementing other standard physical remedies. Programs for the retarded, the sensory impaired, or other exceptional groups are complex, and include many components which vary widely from one educational jurisdiction to another, from class to class within the same jurisdiction, and from child to child within a class. Saying that

a child is mentally retarded and has been placed in a class for the retarded says very little about the program which that child is receiving. Furthermore, this is, of necessity, the case. Disabilities vary widely in severity and coincidence with other disabilities, as well as being moderated or intensified by characteristics of the child's environment. A class of deaf, cerebral palsied, or other type of handicapped children is not a homogeneous group. Conversely children with different diagnoses may share common educational problems (Lord,1967). Thus the classification systems used by educational authorities reflect as much about the administrative organization of a school system as it does about the needs of the children within it.

However, currently there is an increasing tendency to look at children in terms of specific skills and programming needs. This trend, which has a conceptual basis in the retreat from a medical model, is given further impetus by the increasing incidence of children who have multiple problems and thus do not fit into single categories. In the U.S. the Council for Exceptional Children (Special Education Administrative Policies Manual, 1977) has indicated that many of the states are moving toward noncategorical descriptions, and defining handicapped children in terms of specific educational needs rather than global labels.

Currently, the policies and practices for identifying exceptional children are not standard throughout the province of Ontario. For example, Watson et al (1975) investigated various definitions of deafness and hard of hearing and the diagnostic conditions which

enabled those definitions to be applied. These investigators found that no single definition was universally accepted. This seems to be a pervasive and continuing problem in the assessment of all exceptionalities (CELDIC report, 1970). However, the move toward more educationally relevant definitions and assessment procedures would appear to hold for Ontario as well. Although still not routine, it has now become more common for assessments to include the specification of educational objectives for the child, methods of teaching, and evaluation procedures for the teacher to follow. Psychologists and teacher diagnosticians are attempting to bridge the gap between assessment on the one hand, which can be categorical, and programming on the other hand, which must be differentiated (Special Education Department, Toronto Board of Education, 1977)

Even though the change is far from complete, it has resulted in educators becoming more aware of the specific needs of individual children and concerned with meeting those needs. It has been recognized that, although a child may not have so severe a problem that she merits a general diagnostic label and a significant restructuring of her educational program, she may have a specific problem which still must be attacked if she is to reach her educational potential.

The availability of more sophisticated assessment procedures has also meant that many multiply handicapped children, who would previously have been diagnosed as severely retarded or emotionally disturbed and institutionalized without benefit of education, are now being placed in the Provincial Schools for educational treatment.

In the United States a very important development reflecting this trend was the passage of Public Law 94-142.[3] One provision of this law is that all children between the ages of 5 to 18 must have access to suitable educational programming. Children cannot be denied an education because they are handicapped, and all children must be provided with an educational program which is suited to their needs. The law further specifies this latter provision by requiring that an Individualized Educational Program (IEP) be developed for each child and revised periodically (Abeson & Zettel, 1975).

Ontario does not have a similar law. The current statutory regulations for Special Education in Ontario are permissive rather than mandatory. Regulation 191[4] includes a listing of various types of special education programs and services which have the approval of the Ministry, and may thus be implemented by local Boards. However, with the exception of programs for the trainable retarded, a board is not obliged to establish any of these programs.

Section 34 of the Education Act states that:

> A person is not eligible to be a resident pupil in respect of an elementary school if he is unable by reason of mental or physical handicap to profit by instruction in an elementary school.

Thus, while the Education Act requires children to be available to attend school, a corresponding duty has not been placed on school

[3]Education for all Handicapped Child Act of 1975.

[4]Bill 72, The Education Act, 1974. The Hon.T.L. Wells, Ministry of Education, July 2, 1974.

boards to provide education for them and individuals may be excluded if the board feels they cannot benefit from existing programs.

On November 22, 1973, Bill 109 - An Act Respecting Mandatory Special Education - was introduced into the legislature. In February, 1978, it was reintroduced as Bill 18, given a second reading and referred to committee. Thus although the legislative force is still lacking, the concept of the universal availability of special services is clearly extant within Ontario's educational system, and is undoubtedly partly responsible for the increasing enrolments in special education.

Thus we have identified three factors working to increase special education enrolments: a decline in infant and child mortality and concommitant survival of children with handicaps, a change in thinking from assessment categories which are medically-based and categorical to ones which are more educationally relevant and descriptive, and an atmosphere in which the educators feel obligated to provide programming for all children.

A fourth factor is the trend toward earlier and more intensive provision of services to handicapped children. This arose first in the U.S. as part of the attempt to remediate educational problems due to cultural disadvantage. However, special education was soon included in Head Start programs and in the late 1960's Congress Legislated that 10% of the funds spent in preschool programs receiving federal funding had to be earmarked for handicapped children.

Betty Caldwell (1970) presents a cogent argument for early intervention with exceptional children. Referencing research on the importance of early experience in animals, developmental studies

of children reared in different environments, as well as the success of some early intervention programs, she argues for the plasticity of abilities in the young child and the corresponding possibilities for remediation.

PL 94-142 mandates education for children beginning at age 5, but allows boards to initiate programs for children beginning at age 3. Currently in Ontario, the legislation allows boards to provide programs for children beginning at age 4. In the case of the hearing impaired, however, programs may begin at age 2. Recent data collected across the Province indicates that, by age 3, virtually all severely and profoundly deaf children are receiving some type of educational service, many having enrolled initially early in their second year of life.[5]

Similar provision has not yet been made for other groups. However more preschool programs have been developed in recent years for other children within the limits of the legislation.

The operation of these four factors is impossible to disentangle in practice when looking at demographic changes in any particular area.

For example, ten to twelve years ago it was reported that seventy-five percent of the physically handicapped children at Sunnyview School were mobile whereas 80 to 90 percent of the current population are confined to wheelchairs. There is also an increasing number of

[5]Census data collected by C. Reich, P. Lindsay, and A. Keeton, Department of Special Education, OISE, 1978.

children in this group with little or no verbal communication skills (Submission of the Special Education Department, Toronto, November 1977). The percentage of multihandicapped students enrolled in provincial schools for the blind and deaf fifteen years ago ranged from 10 to 20 percent. That figure has risen to 30 to 50 percent at the current time.[6]

This change in the nature of the handicapped population derives from the operation of all four factors that have been identified. First of all, there is the increased survival rate of children with disabilities. Cerebral palsy, in particular, is frequently due to prematurity or birth trauma. Second, more sophisticated assessment procedures have made it possible to determine what things multiply handicapped children can as well as cannot do, thus giving direction to an educational program. Previously, many of these children would have been labelled severely retarded and confined to institutions with no substantive educational program. Additionally, in the past, some of these children would not have been in any type of program, the educational system feeling it could not serve them, and their parents eschewing placements that were merely custodial. Finally, some of these children would be of preschool age, and thus not likely to have been in school in previous years, whether or not they were multiply handicapped.

The implication of these four factors is that there is pressure for special education services to increase as well as to change. It is impossible to project what the potential for increase is. However, the existence of voluntary organizations such as the Ontario Association

[6]Enrolment Projections: Schools for the Blind and Deaf, Ontario Ministry of Education memo, February 13, 1978.

for Children with Learning Disabilities, The Ontario Society for Autistic Children, the Clinton Educational and Community Association, suggests that there are still needs which have not been met, at least within the educational system. Certainly some of the functions of these groups are to provide self-help to parents and to deal with issues that are not strictly educational. But a major function is to lobby for more and better services, and some of these organizations have been directly involved in the provision of educational services, spanning the gamut from classification and assessment to programming. Thus there would still appear to be potential within special education for growth.

CHANGES IN THE PROVISION OF SERVICE

The usual manner of providing for exceptional children has been to place them in self-contained classes in regular schools or in schools which are totally devoted to exceptional children. In the 1960's this was virtually the only type of provision for the special child. However, since that time there has developed the concept of the continuum of service, which ranges from full-time placement in a self-contained classroom in a special or regular school to integrated placements supplemented with partial withdrawal into a special class or the provision of special instruction to the child or programming help to the teacher by a resource teacher located permanently in a school or functioning on an itinerant basis (Kirk, 1962). Mainstreaming in the U.S. is mandated by PL 94-142. In addition to educating all handicapped children, a second provision of that law requires that children be educated in the "least restrictive environment." The Special Education Administration Policies Manual for the U.S. (CEC, 1977) states that a child should only be removed from the regular classroom when supplemental services provided within the regular class are not sufficient to meet his or her needs.

The trend toward integration has received empirical support from research into a number of areas: studies of the limited success of remedial programs for culturally disadvantaged children, findings showing the importance of the family and the peer group as opposed to formal schooling in influencing learning, research demonstrating the importance of incidental learning to personal and intellectual development, and research on the undesirable effects of labelling (see Dunn, 1968). But, perhaps, the most influential body of research

related to this area has been direct comparisons of the effectiveness of special as opposed to regular class placement.

In his landmark article, Dunn (1968) summarized research showing that educationally mentally retarded students achieved no better in special classes than similar students in regular classes who were receiving no special Services. Gampel et al. (1972), in an observational study of EMR children and their non-retarded age-mates, found that both integrated EMR's and special class children engaged in significantly less interpersonal interaction than did their non-retarded peers. This held for a variety of categories, including attention, deviance, and communication. Lilly (1970, 1971), Christoplos and Renz (1969), and others have also questioned the efficacy of special class placement.

Other studies provide some support for the position that self-contained classes are the preferred placement for EMR pupils. Johnson (1962) found that EMR children in segregated classes were better adjusted than similar children who were integrated. Warner, Thrapp and Walsh (1973) found that 61% of the educable mentally retarded children in their study liked being in a special class. Jones (1974) also found that retarded students had positive attitudes toward their special class, although they rejected the stigma associated with it.

One of Dunn's arguments for fostering integration was that the educational system is much more sophisticated than it was when special classes were first introduced, and regular teachers are better equipped to handle special problems. However, it is not clear that sufficient change has yet occurred. Shotel, Iano and Gettigan (1972) question the feasibility of integrating educable mentally retarded

children into classes which are based on a conventional grade organization because teachers are not able to accommodate their slower rate of development.

In a later article, Dunn (1973) says that educable retarded children with IQ's in the 50's cannot function in a regular class that is academically oriented. The special class, he felt, did have a place in providing an intellectually appropriate and comfortable placement for such children.

Garrison and Hammill (1971) found that EMR children did not integrate well either academically or socially into regular classrooms, even when support services were available. They also attributed this lack of success to the existence of a conventional age-grade pattern within the school. They suggest that the integration of these children may be feasible given a non-graded pattern.

Sindelar and Deno (1978) summarize a number of studies which show that EMR children cannot always be successfully integrated even when special resource programs are available. Their conclusion receives additional support from studies by Budoff and Gotlieb (1976), Carrol (1967), Smith and Kennedy (1967), and Walker (1974). Thus the literature raises serious questions about the effectiveness of integrated placements for EMR students, but does not point to a clear alternative.

However, the literature gives more unequivocal support for the integration of emotionally disturbed and learning disabled children. Studies reviwed by Sindelar and Deno (1978) show that resource programs

for these types of children tend to be more effective in fostering both academic and personal growth than similar programs for retarded children. Additional studies by Galvin (1971), Jenkins and Mayhall (1974), Quay et al. (1972), and Sabatino (1971) yielded similar findings. However, Sindelar and Deno's review did include several studies with contrary results, and the picture is thus not completely clear. A great deal doubtless depends on the exact nature and intensity of the support that is provided.

Jones (1978) lists a number of conditions that must exist before integration can be successful. First of all, for instructional integration to occur, the children within a class must have needs that are somewhat comparable. The teacher must not only be willing, but trained, to modify instructional practices for individual children, and cooperation and coordination must exist between the regular classroom teacher and support personnel. In a very recent study, Richmond and Waits (1978) found that the slow learner is encountering problems in school that are still not being met by any type of special education provision. This indicates the need for still more innovative programming and changes in the provision of service.

Although Ontario lacks the supportive legislation, the notion of integration is current in this province as well. In 1969 the September Report of the Minister of Education[7] indicated a greater emphasis being placed within the Province on the integration of exceptional children into regular classes. This was occurring concommitently with more help being given to regular classroom

[7]September Report of the Minister of Education, 1969.

teachers to prepare them to be better able to take individual differences into account. A new course was offered to teachers by the Ministry on prescriptive teaching. This course included diagnostic, remedial, and developmental instructional techniques that were applicable to various exceptionalities. The September report for 1970 of the Minister of Education again emphasized the importance of integration.

The Ministry of Education endorses the model of a continuum of service and the philosophy of placing children within the continuum according to their individual needs. In 1971, the first time in 27 years that the total number of elementary pupils was expected to decline (Education Statistics, Ontario, 1975), legislation was enacted enabling school boards to assume responsibility for educational programs in hospital and sanitorium schools for mentally, physically, and multiply handicapped children.[8] The Ministry is also attempting to decrease the enrolment of Developmental Centre Schools (Ontario Hospital Schools). This has resulted in an actual decline in their enrolments of approximately 50 pupils per year. A greater number of current placements are short term, and there is greater emphasis on diagnosis, assessment, and the development of prescriptive programs rather than the provision of ongoing service. The long term responsibility for the administration of special programs of various types and the care of the children in them is coming to be more and more under the jurisdiction of local boards.[9] The increasing placement of troubled children by the Ministry of Community and Social Services into group homes rather than training schools has had

[8]Report of the Minister of Education, 1971.

[9]Enrolment Projections: Developmental Centres Schools, Ontario Ministry of Education memo, February 13, 1978.

a similar effect (Submission of the Special Education Department to the Work Group on Special Education, November 1977). The trend toward integration seems also to be supported locally. Statistics produced by the Ontario Ministry of Education show that in both 1975 and 1976, 62% of all children receiving special education in local boards were integrated.[10]

A number of problems are associated with the implementation of an integrationaist philosophy, especially in an era of declining resources. To the extent that exceptional children are integrated, their geographical dispersion is increased, and the provision of services that are intensely specialized becomes less efficient. This is true for severely handicapped children, such as the blind, deaf, and cerebral palsied, who require some help suited to their particular disabilities.

In addition new types of support personnel must be recruited and trained. The regular classroom teacher, serving 20 to 40 children, cannot be expected to meet the educational, physical, social, and emotional needs of children with severe deficits. These teachers need to be equipped with skills necessary to cope with a variety of problems, to select materials, develop and individualize instruction for a wide range of abilities. This need can best be met by curriculum specialists who have broad-ranging skills, and are familiar with the problems of exceptional children as well as those that so-called normal children face within the classroom. Behavioral consultants are also required in order to help the teacher deal with personal and social problems that are either a primary or secondary disability.

[10]Enrolment of Exceptional Children by Program 1975; Special Education Data, 1976. Ontario Ministry of Education unpublished statistic

Specialists in particular disabilities are still required, but they must learn to work within a different milieu.

Some types of support requirements can be provided by para-professionals. For example, some deaf children can be integrated only by providing sign language interpreters or note takers to accompany them into the classroom. These do not need to be provided by trained teachers, although there are specialized skills that the personnel must have.[11]

Warfield (1974) and Deno (1973) argue that efforts to provide these services have not kept up with efforts to mainstream. Consequently, there have been some manpower shortages of specialized personnel, and research evidence has demonstrated that there is an overwhelming majority of regular classroom teachers who feel that they lack the necessary skills to teach exceptional children (Gickling and Theobald, 1975; Agard, 1975).

The implication of the changes that are occurring in the provision of services is that there is tremendous need for professional training in the area of special education. In an era of declining enrolments and lack of growth in the teacher population, this means in-service and retraining, rather than pre-training. Furthermore, the integration of exceptional children requires that training be extended to regular class teachers. Thus the need is virtually as large as the teacher population.

[11] For a thorough discussion of this topic, see Gearheart, B.R. & Weishahn, M.W. The Handicapped Child in the Regular Classroom, St. Louis, C.V. Mosby, 1976.

SPECIAL EDUCATION IN ONTARIO - A DETAILED LOOK

In our investigation of special education generally, we encountered two major trends in the literature with some indication of their relevance to Ontario: (a) an increase in special education populations, and (b) a change in the provision of services from an emphasis on self-contained classrooms to various models of integration. This section comprises a more detailed look at statistics collected in Ontario to see to what extent these two general trends are operative here.

Figures available from the Ministry of Education indicate the major trends in special education. Table 4 gives the special education enrolments by type of program for the years 1975, 1976, and 1977. This data shows a clear trend for total special education enrolments to increase. Furthermore the areas of increase can be specified. Special class placements at the elementary level appear to be neither increasing nor decreasing. Enrolments in hospital schools and in schools for the blind and deaf are declining, reflecting the return of some of these children to local jurisdiction. However, resource programs, which even in 1975 accounted for the vast majority of special education students at the elementary level, have increased 11% during the two year period. At the secondary level, most special students are in self-contained classes. All programs have increased: special classes by 35%, and resource program enrolments by 31%. TMR enrolments have increased slightly, probably reflecting the increase in children with severe, multiple handicaps, as well as the increase in provision for such children. The number of children

Table 4

Ontario Special Education Enrolments

by Type of Program and Year

	1975	1976	1977
Elementary			
Special Classes	37,417	35,750	37,352
Resource	123,072	131,233	138,148
Hospital Schools	3,468	4,134	2,472
Secondary			
Special Classes	29,430	40,714	45,195
Resource	15,889	22,770	23,029
Hospital Schools	115	423	459
Schools for TMR	7,567	8,204	8,329
Schools for Blind and Deaf	1,148	1,126	1,074
TOTALS	218,106	244,354	263,313
Not enrolled in any program	977	1,120	536

reported not enrolled in an educational program has declined overall.

Table 5 further breaks down this data by type of disability.

Information was also collected directly from Boards of Education as part of the CODE survey. This survey was distributed to 193 boards and 12 teacher education institutions across the Province, with replies received from 88 boards and 8 teacher education institutions. Many of the boards which did not respond are small. The Commission on Declining School Enrolments calculated that, according to 1976 figures, boards responding to the general CODE questionnaire represented 546,984 elementary students or 40.2% of the total elementary enrolment for Ontario (1,360,085) and 290,939 or 47.4% of the total secondary enrolment. Slightly more boards responded to the special education section of the questionnaire, and thus the sample considered here represents a somewhat greater coverage of the population. Unfortunately precise figures are not available on a board by board basis, and it is not possible to calculate the exact percentage. However, it is not too far wrong to regard the present sample as representing approximately 50% of the school population.

The total special education population of the boards responding to the special education survey included 103,959 elementary and 31,220 secondary school students. If the total enrolment figures given above for boards responding to the general CODE survey are used as an estimate of the total enrolment for boards responding to our survey, it appears

Table 5

Ontario Special Education Enrolments
by Disability, Type of Program, and Year

Disability	Type of Program: Elementary — Special Class	Elementary — Resource Program	Secondary — Special Class	Secondary — Resource Program	GRAND TOTALS
1 Remedial					
1975	-	62,424	-	8,604	
1976	-	65,240	-	12,557	
1977	-	69,727	-	11,660	
2 Learning Disability					
1975	6,597	7,386	2,652	1,896	
1976	6,731	7,681	908	2,676	
1977	7,488	8,171	630	2,186	
3-4 Retarded & Slow Learners					
1975	19,753	9,164	20,909	783	
1976	20,937	8,510	36,322	2,177	
1977	21,618	8,230	37,983	2,028	
5 Trainable retarded					
1975	65	23	80	8	
1976	26	32	90	38	
1977	29	36	129	27	
6 Gifted					
1975	2,907	2,984	1,353	467	
1976	2,131	4,526	1,213	1,145	
1977	2,427	4,359	2,384	1,217	
7 Behavioral					
1975	2,048	2,212	1,439	839	
1976	1,834	2,406	931	902	
1977	1,660	2,192	714	1,136	
8 Hearing Impaired					
1975	773	499	264	165	
1976	666	525	205	238	
1977	610	567	188	237	
9 Limited Vision					
1975	163	181	161	124	
1976	103	169	112	395	
1977	48	155	92	137	
10 Orthopaedic					
1975	569	353	249	115	
1976	448	294	152	176	
1977	367	305	167	230	
11 Multiply Handicapped					
1975	451	130	99	33	
1976	681	243	77	61	
1977	816	151	94	62	
12 Speech and Language					
1975	1,286	24,197	342	1,049	
1976	553	26,793	151	1,162	
1977	528	29,884	196	1,135	
13 Other					
1975	2,804	13,519	1,927	1,806	
1976	1,687	14,806	1,843	2,449	
1977	1,761	14,224	2,613	2,974	
TOTAL					
1975	37,417	123,072	29,430	15,889	205,808
1976	35,794	131,233	40,714	22,770	230,511
1977	37,352	138,148	45,195	23,029	243,724

KEY:
↑ Enrolments increasing regularly
↓ Enrolments decreasing
↑ Enrolments appear to be increasing but the trend is irregular
↓ Enrolments decreasing but trend is irregular
→ No clear trend discernible

that roughly 14.5% of the population is enrolled in special education. The exact figure would be slightly less than this. Figures released by the Ministry of Education during 1976-77 indicate that special education programs included 12% of the total school enrolment. This figure is relatively close to the one calculated for our sample. Taking into account the fact that precise enrolment figures for the sample boards are not available, and that the CODE figures are from 1976-77, the reasonably good agreement between the two figures supports the conclusion that the special education sample is fairly representative of the boards in the Province.

As part of the special education survey, boards were asked to indicate the number of children enrolled in various programs for the academic year 1977-78, and the number of children on waiting lists for that year. These data appear in Table 6. Boards were also asked to indicate to what extent program enrolments had changed over the past five years. Table 7 indicates the number of boards reporting that various program enrolments had increased, decreased, or stayed the same.

The Ministry data on enrolments (Tables 4 & 5) and that obtained from boards (Table 6) are not completely congruent, making total amalgamation impossible. For one thing, our data combines "Speech and Language Programs" with "Other" (categories 12 and 13), while the Ministry data combine "Slow Learners" and :Educable Retarded". But there are also differences in the data for categories that are ostensibly the same. This is not surprising in data collected for

Table 6

Number of Children Receiving Various Types of Special Education Services, 1977

(Sample Boards, n=93)

		Elementary Level			Secondary Level		
		Self-contained Class[a]	Resource Programs[b]	Waiting List	Self-contained Class[a]	Resource Programs[b]	Waitin List
1	Remedial	1,585	41,982	3,187	1,340	4,577	110
2	Learning Disabilities	2,931	5,236	1,338	932	1,581	99
3	Slow learner	10,823	8,040	872	15,720	371	122
4	Educable retarded	2,826	206	127	2,195	27	-
5	Trainable retarded	2,813	189	37	996	18	5
6	Gifted	1,805	1,525	453	100	605	16
7	Behavioral	926	1,162	374	184	146	15
8	Deaf and Hard of Hearing	530	318	4	39	38	-
9	Blind and Limited Vision	46	890	2	-	42	-
10	Orthopaedic	299	51	-	23	51	-
11	Multiply Handicapped	446	145	14	13	72	-
12-13	Speech & Other	1,186	10,692	899	1,201	560	22
	Total	26,216	70,436	7,307	22,743	8,088	389

[a]Self-contained Classes: Students are placed the majority or all of their time in a segregated class with other special education students.

[b]Resource Programs: Students spend most of their time in a regular class, but are withdrawn for part of the time into a special class, or receive individual help from a special education teacher either within the regular classroom or on a withdrawal basis.

two different purposes, and likely reflects the lack of standardization in special education categories. Data reported to the Ministry are based on the definitions used for funding purposes, while those reported to us reflect definitions used by boards for their own administrative purposes. The Ministry data report no children placed in remedial classes on a full-time basis, while the Board data do. Although it is possible that a real change occurred from 1976-77 to 1977-78, it is more likely that different category definitions were used in the two instances. There is a serious anomaly in the totals for type of program. As discussed before, it is not unreasonable to multiply our sample statistics by "2" as an estimate of Provincial totals. When this is done, the sample estimate for the number of elementary children in special classes is 52,432, while the corresponding Ministry figure is only 37,352. There is very close correspondence between the two enrolment figures for resource programs - 140,872 and 138,148. The correspondance for self-contained classes at the secondary level is fairly good (45,486 vs. 45,195) but that for resource programming is not (16,176 vs. 23,029). There are two possible explanations for this- either our sample is biased, or the two sets of statistics were based on different program definitions. For these reasons, conclusions about enrolments will only be drawn when there is agreement between the two data bases.

It has already been noted that most elementary special education students are receiving resource programming. This picture is confirmed by both sets of data. The data from both sources indicate that resource

programs predominate for children requiring remedial help (#1), help with speech and language training (#12), as well as children diagnosed as learning disabled (#2), and behavior disordered (#7). Special placements predominate for the slow learners and retarded (#3 and 4), hearing impaired (#8), orthopaedically handicapped (#10) and multiply handicapped (#11). This pattern is congruent with the efficacy studies reviewed above, showing that it is generally easier to integrate learning and behaviorally handicapped children than children who are retarded.

At the secondary level, the data confirm the predominance of special class placement. The vast majority of these are in occupational and vocational classes or schools. However, at the secondary level too, resource programming predominates for remedial students.

Table 6 indicates that there is a substantial waiting list of identified children in need of special services at both the elementary and secondary school level. This is an important concern. It the total waiting list for the sample of 7,696 is doubled, a figure of 15,392 results, which is close to the Ministry's estimate.

Table 5, which gives Ministry data, also indicates where enrolments have increased (↑), decreased (↓), or showed no consistent pattern (→). Table 7 gives the number of boards reporting these trends for various programs. The Ministry data indicate a general decrease in the number of segregated placements. This is not confirmed by the Board data, where there are substantial increases which outweigh decreases for most categories. The Ministry data indicate that increases have occurred in special class placements for learning disabled, retarded and slow learners, and

Table 7

Number of Boards Reporting Changes in the Size of Various Types of Special Education Programs (1977-1978)

		Elementary Level									Secondary Level								
		Self-contained Class			Resource Programs			Waiting List			Self-contained Class			Resource Programs			Waiting List		
		* +	-	o	+	-	o	+	-	o	+	-	o	+	-	o	+	-	
1	Remedial	8	7	6	42	4		14	2	9	5	-	4	22	1		2	1	
2	Learning Disabilities	33	2	8	28	1	1	19	1	3	4	1	11	13	-	7	3	-	
3	Slow learner	19	11	11	20	1	16	7	2	7	8	2	12	4	-	7	1	-	
4	Educable retarded	9	9	14	8	4	9	5	1	6	7	3	7	3	-	6	1	-	
5	Trainable retarded	15	5	13	3	2	11	4	1	6	9	2	4	1	1	8	-	-	
6	Gifted	6	5	11	19	3	9	6	2	7	2	-	7	2	-	8	1	-	
7	Behavioral	16	4	10	22	1	11	13	-	5	3	2	6	5	-	6	1	-	
8	Deaf and Hard of Hearing	11	7	9	11	4	16	2	2	9	1	-	10	1	-	11	1	-	
9	Blind and Limited Vision	4	8	15	7	3	18	1	2	10	-	1	11	2	1	9	-	-	
10	Orthopaedic	8	2	17	3	1	17	-	2	7	-	-	10	-	2	11	1	-	
11	Multiply Handicapped	8	2	9	9	1	12	3	-	6	-	1	8	2	1	9	-	-	
12-13	Speech & Other	12	3	7	13	2	11	5	-	5	5		9	5	2	6	2	-	

* + = increase

\- = decrease

o = stayed the same

multiply handicapped. This is confirmed by the Board data. One possible resolution of the discrepancy is that boards are providing special class placements without attempting to or without being able to recover the cost involved. This is an area that needs further investigation.

The picture at the secondary level is more mixed. The Ministry data indicate both increases and decreases in special class programming. However in terms of numbers, the substantial increase for the retarded and slow learning students is responsible for an overall increase in special class enrolments. The Board data also reflect this trend.

The picture for resource enrolments is more clear. Both sets of data reflect a general increase, although there is some disagreement on where the increase is occurring. The increase is especially apparent in resource programming for remedial and disabled children. There is also a substantial increase in resource programming for gifted children at the elementary level.

PROFESSIONAL TRAINING NEEDS

The increasing number of children in special education will require increased staff to meet their needs. The change in the nature of the population served and the rise of alternative forms of service delivery necessitate a change in the type of training required. There will likely need to be a change in the form of training to greater use of in-service as opposed to pre-service models because of stability in the teacher population, and because of the need to extend some special education skills to regular classroom teachers. Boards and teacher training institutions will need help in developing such programs.

In order to determine where the greatest training needs lay, Boards of Education and Faculties of Education were asked to indicate the extent to which training in various areas was presently available to meet needs.

Those data are presented in Tables 8 and 9, and indicate the availability of training in various areas of exceptionality, assessment, instructional techniques, administration, and research. The data indicate that there is a general need for more training in all areas. Even the most adequately served are only moderately served. There is wide variation in the extent to which training is available in various exceptionalities. Those which seem to be most adequately covered include slow learners, the retarded, and learning disabled, followed by the emotionally or behaviorally disturbed, and the blind and deaf. The orthopaedically and multiply handicapped are the least well served in terms of professional training.

Theoretical knowledge regarding particular exceptionalities is generally perceived to be better covered than practical experience. For board respondents these differences were not great. However, respondents from the teacher education institutions indicated a larger difference, which is due to the fact that they perceived some areas to be extremely well covered theoretically, but rated the practical coverage no higher than did the boards. There was a great deal of discrepancy between the two sets of respondents in the rating of training in sensory and orthopaedic handicaps. This is because these areas are handled outside of the faculties of

Table 8

Judgement of the Adequacy of Current Teacher Training Programs in Various Topic Areas
(Boards of Education, n =93)

	Adequate Training Available %	Some Training Available %	Very Little or No Training Available %	Not an important training area %
Theoretical Knowledge				
a. normal development	60	35	5	
b. atypical development of:				
slow learners & retarded	47	39	14	
learning disabled	41	39	20	
emotionally or behaviorally disturbed	29	43	28	
blind and deaf	30	33	31	6
orthopaedically handicapped	20	33	39	7
multiply handicapped	21	32	40	7
Practical Experience				
a. normal development	66	30	4	
b. atypical development of:				
slow learners & retarded	39	43	17	
learning disabled	32	43	25	
emotionally or behaviorally disturbed	24	42	34	
blind and deaf	26	32	37	4
orthopaedically handicapped	19	31	43	6
multiply handicapped	22	28	44	6
Assessment Techniques				
a. educational	41	44	15	
b. psychological	37	38	25	
Instructional Techniques				
a. familiarity with instructional materials	32	58	10	
b. curriculum development techniques	24	57	19	
Administration of Special Education				
a. program implementation strategies	18	50	32	
b. models of service delivery	22	42	36	
c. professional development techniques	19	46	36	
d consultancy skills	17	47	35	
e. funding of special education	10	44	45	
Research and Program Evaluation Techniques				
a. knowledge of current research	18	38	44	
b. ability to conduct research on current needs	17	28	56	

Table 9

Judgement of the Adequacy of Current Teacher Training Programs in Various Topic Areas
(Faculties of Education and Teacher Education Programs, n = 8)

	Adequate Training Available %	Some Training Available %	Very Little Or No Training Available %	Not an important training area %
Theoretical Knowledge				
a. normal development	100	-	-	
b. atypical development of:				
slow learners & retarded	86	-	14	
learning disabled	75	13	13	
emotionally or behaviorally disturbed	71	14	14	
blind and deaf	-	29	71	
orthopaedically handicapped	-	57	43	
multiply handicapped	14	43	43	
Practical Experience				
a. normal development	100	-	-	
b. atypical development of:				
slow learners & retarded	60	-	40	
learning disabled	50	-	50	
emotionally or behaviorally disturbed	42	29	29	
blind and deaf	-	14	86	
orthopaedically handicapped	13	25	63	
multiply handicapped	14	43	43	
Assessment Techniques				
a. educational	63	38	-	
b. psychological	14	63	13	
Instructional Techniques				
a. familiarity with instructional materials	57	29	14	
b. curriculum development techniques	43	57	-	
Administration of Special Education				
a. program implementation strategies	29	29	42	
b. models of service delivery	13	50	38	
c. professional development techniques	57	43	-	
d. consultancy skills	38	38	25	
e. funding of special education	-	33	67	
Research and Program Evaluation Techniques				
a. knowledge of current research	38	38	25	
b. ability to conduct research on current needs	29	-	57	14

education. Faculties were rating only their own programs, while Boards were responding in terms of the entire range of training available.

Educational and psychological assessment techniques were rated as being fairly adequately covered.

Training related to instructional techniques, including familiarity with materials and the principles of curriculum development, is less well covered. This is especially evident in responses from boards. Boards also perceive a real problem in training for administration of special education, including such things as program implementation strategies, models of service delivery, professional development techniques, consultancy skills, and funding.

Research and program evaluation techniques, which include knowledge of current research and the ability to conduct research, are an area which all rspondents see as poorly served. Only one respondent felt that this was not an important training area. The implication is that there is a real need in this area which is currently not being met.

Boards offered additional comments in writing. In line with the trend toward integration, a number of boards mentioned the need for training of regular teachers on both a pre and an in-service basis. The need for training related to special education at the secondary level was also stressed. Comments from some boards indicated difficulties in obtaining training in the more remote areas of the Province, and in finding specialized personnel in those areas. The lack of training available in French was also noted.

SUMMARY AND OVERVIEW

The data presented here have documented the following:

(1) Enrolments in special education are increasing due to a combination of demographic and programming factors;

(2) There is a change in the nature of the special education population, both in the type and the severity of the client group being served;

(3) There is a change in the provision of special education services, with a greater emphasis on retaining exceptional children in the regular classroom;

(4) There are considerable unmet needs in the area of professional training with needs existing for work in particular exceptionalities, assessment and educational techniques, administration, and research.

(5) New training models will have to be developed to meet these needs, emphasizing even more provision of training opportunities on an in-service basis.

Special education is in a peculiar situation as a result of declining enrolments and the existence of these needs. On the one hand the general decline means sufficient personnel and material resources are available to meet these needs. However, considerable staff retraining and redeployment of existing services and goods will be required. This will need to occur within boards, between boards and provincial resources of various kinds, and within the

faculties of education. In some ways, this presents no particular problem, since training in special education has usually occurred on an in-service rather than a pre-service basis. In addition, there already exists a large number of teachers in regular classrooms who have special education qualifications. 40% of those enrolled in the Ministry's summer courses take special education, and many of these do not have positions as special teachers. However, it is possible that some teachers will seek specialized training in order to protect their jobs rather than because of a professional interest in the area. There is also the danger that special education will become the repository for teachers whom supervisors wish to remove from the classroom because their performance there has been unsatisfactory. We do not mean to imply that there is evidence of such a negative trend but only that this would seem to be a natural pressure that might emerge at such a time. The positive side of the coin is that increasing competition by teachers may lead to an increase in selection standards.

The other fact, of course, is that expansion and innovation of specialized services cannot be accomplished without some additional funds. Not all training can be accomplished on an in-house or even an in-Province basis. Not all needs can be met by a transfer of resources. There are, at the very least, administrative costs associated with any type of change. There is, too, the danger that the provision of services within an integration framework will be viewed as less costly than special classes. This is not necessarily the case, and considerable support services are often required.

The whole issue of funding is difficult and complex, and one that it has not been possible to deal with here. It is an issue that requires further study, both to determine the actual new costs involved, as

well as ways of administering them. From the survey it appears that there is some confusion in boards regarding the Ministry's grant structure. Some feel confident that money expended on special education is recoverable; others do not. This is an area requiring clarification.

What then is the future likely to be? As part of the survey, we asked boards what effects they anticipated for special education as a result of declining enrolments. Sixty-one boards responded to the question, and their answers divided roughly by thirds. 28% felt that the general decline in enrolments was likely to have deleterious effects. The concerns of these boards revolved around the possibility that pressures from the general system to maintain itself would erode special education. Some boards, generally those that were smaller, had concerns about services declining below a critical level that made them viable. 30% expected that they would be able to maintain services, and 38% hoped for an increase, either in quantity or quality of service. The optimism of these boards was based on their feeling that special education was a priority within their systems, and that the grant structure did allow recovery of costs. Some also felt that declining enrolments offered the likelihood of smaller classes, making it easier for teachers to identify and manage exceptional children within their class.

Thus the future of special education is open, although not without its problems. Most boards seem to feel that the challenges can be met. What is required is careful study of the needs that exist, of the resources already available or required in addition, and careful planning to coordinate their deployment for maximal effectiveness and efficiency.

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